

CLAIMS

[1] A steam cooking apparatus comprising:

steam generating means that generates steam from water fed thereinto from water feeding means and that feeds the steam into a heating chamber in which an article-to-be-heated is heated;

first time counting means that counts a retention time for which the water present inside the steam generating means is retained there;

water draining means that drains the water inside the steam generating means;
and

controlling means that controls operation of the water draining means,

wherein

when the retention time counted by the first time counting means has reached a predetermined time, the controlling means makes the water draining means drain the water inside the steam generating means.

[2] The steam cooking apparatus of claim 1, wherein

the first time counting means counts, as a first retention time, a time for which the water fed into the steam generating means before evaporation thereby is retained,
and

when the first retention time has reached a first predetermined time set with respect to the water, the controlling means makes the water draining means drain the water inside the steam generating means.

[3] The steam cooking apparatus of claim 1, wherein

the first time counting means counts, as a second retention time, a time for which the water retained inside the steam generating means after evaporation thereby is retained, and

when the second retention time has reached a second predetermined time set with respect to the water, the controlling means makes the water draining means drain the water inside the steam generating means.

[4] The steam cooking apparatus of claim 1, wherein

the first time counting means counts, as a first retention time, a time for which the water fed into the steam generating means before evaporation thereby is retained, and also counts, as a second retention time, a time for which the water retained inside the steam generating means after evaporation thereby is retained,

according to operation status of the steam cooking apparatus, the controlling means selects one of the first and second retention times, and selects one of a first predetermined time set with respect to the water fed into the steam generating means before evaporation and a second predetermined time set with respect to the water retained inside the steam generating means after evaporation, and

when the selected retention time has reached the selected predetermined time, the controlling means makes the water draining means drain the water inside the steam generating means.

[5] The steam cooking apparatus of claim 1, further comprising:

water temperature detecting means that measures a water temperature of the water inside the steam generating means,

wherein

when the water temperature detected by the water temperature detecting means is equal to or higher than a predetermined temperature, the controlling means stops the water draining means from draining the water inside the steam generating means.

[6] A steam cooking apparatus comprising:

steam generating means that generates steam from water fed thereinto from water feeding means and that feeds the steam into a heating chamber in which an article-to-be-heated is heated;

second time counting means that counts a total time that has elapsed after the water feeding means started to feed the water into the steam generating means;

water draining means that drains the water inside the steam generating means;

and

controlling means that controls operation of the water draining means,

wherein

when the retention time counted by the second time counting means has reached a predetermined time, the controlling means makes the water draining means drain the water inside the steam generating means.

[7] The steam cooking apparatus of claim 6, further comprising:

water temperature detecting means that measures a water temperature of the water inside the steam generating means,

wherein

when the water temperature detected by the water temperature detecting means

is equal to or higher than a predetermined temperature, the controlling means stops the water draining means from draining the water inside the steam generating means.

[8] A steam cooking apparatus comprising:

steam generating means that generates steam from water fed thereinto from water feeding means and that feeds the steam into a heating chamber in which an article-to-be-heated is heated;

fed water amount detecting means that detects a total amount of water that the water feeding means has fed into the steam generating means;

water draining means that drains the water inside the steam generating means;

and

controlling means that controls operation of the water draining means,

wherein

when the total amount of water detected by the fed water amount detecting means has reached a predetermined amount, the controlling means makes the water draining means drain the water inside the steam generating means.

[9] The steam cooking apparatus of claim 8, further comprising:

water temperature detecting means that measures a water temperature of the water inside the steam generating means,

wherein

when the water temperature detected by the water temperature detecting means is equal to or higher than a predetermined temperature, the controlling means stops the water draining means from draining the water inside the steam generating means.

[10] A steam cooking apparatus comprising:

steam generating means that generates steam from water fed thereinto from water feeding means and that feeds the steam into a heating chamber in which an article-to-be-heated is heated;

third time counting means that counts, as a total water feed time, a net total time for which the water feeding means has fed the water into the steam generating means;

water draining means that drains the water inside the steam generating means;
and

controlling means that controls operation of the water draining means,

wherein

when the total water feed time counted by the third time counting means has reached a predetermined time, the controlling means makes the water draining means drain the water inside the steam generating means.

[11] The steam cooking apparatus of claim 10, further comprising:

water temperature detecting means that measures a water temperature of the water inside the steam generating means,

wherein

when the water temperature detected by the water temperature detecting means is equal to or higher than a predetermined temperature, the controlling means stops the water draining means from draining the water inside the steam generating means.

[12] A steam cooking apparatus comprising:

steam generating means that generates steam from water fed thereinto from water feeding means and that feeds the steam into a heating chamber in which an article-to-be-heated is heated;

water draining means that drains the water inside the steam generating means;

controlling means that controls operation of the water draining means; and

input means via which an instruction to drain the water is fed in,

wherein

when an instruction to drain the water is fed in via the input means, the controlling means makes the water draining means drain the water inside the steam generating means.

[13] The steam cooking apparatus of claim 12, further comprising:

water temperature detecting means that measures a water temperature of the water inside the steam generating means,

wherein

when the water temperature detected by the water temperature detecting means is equal to or higher than a predetermined temperature, the controlling means stops the water draining means from draining the water inside the steam generating means.

[14] The steam cooking apparatus of one of claims 1 to 13, further comprising:

a water drain tank in which the water drained by the water draining means is collected; and

information detecting means that detects information on the water drain tank or

on the water inside the water drain tank,

wherein

according to the information detected by the information detecting means, the controlling means controls drainage of the water inside the steam generating means by the water draining means.

[15] The steam cooking apparatus of claim 14,

wherein

the information detecting means includes an attachment state detector that detects an attachment state of the water drain tank, and

when the attachment state detector detects that the water drain tank is attached to the steam cooking apparatus, the controlling means makes the water draining means drain the water inside the steam generating means.

[16] The steam cooking apparatus of claim 14,

wherein

the information detecting means includes a water level detector that detects a water level of the water inside the water drain tank, and

when the water level detector detects that the water level of the water inside the water drain tank is equal to or lower than a predetermined water level, the controlling means makes the water draining means drain the water inside the steam generating means.

[17] The steam cooking apparatus of claim 14, further comprising:

indicating means that indicates a warning when the information detecting means detects that the water drain tank is not attached to the steam cooking apparatus or that a water level of the water inside the water drain tank is higher than a predetermined water level.

- [18] The steam cooking apparatus of claim 16, further comprising:
 a movable member that changes a position of the water level detector as the water drain tank is put into or taken out of the steam cooking apparatus.